

WHAT IS CLAIMED IS:

1. A nutritional formula comprising
 - (A) carbohydrate,
 - (B) protein;
 - (C) lipid containing a polyunsaturated fatty acid; and
 - (D) from about 0.25 to about 11 ppm, by weight of the total oil content of the nutritional formula, of a combination of lutein, lycopene, and beta-carotene at the following weight ratios:
 - (i) lutein to beta-carotene of from about 0.0196:1 to about 59:1,
 - (ii) lycopene to beta-carotene of from about 0.00805:1 to about 114:1, and
 - (iii) lutein to lycopene of from about 0.0117:1 to about 108:1.
2. The nutritional formula of Claim 1 wherein the formula comprises the following weight ratios:
 - (i) lutein to beta-carotene of from about 0.1:1 to about 40: 1,
 - (ii) lycopene to beta-carotene of from about 0.01:1 to about 60: 1, and
 - (iii) lutein to lycopene of from about 0.05:1 to about 70: 1.
3. The nutritional formula of Claim 1 wherein the formula comprises the following weight ratios:
 - (i) lutein to beta-carotene of from about 0.1: 1 to about 10:1,
 - (ii) lycopene to beta-carotene of from about 0.1:1 to about 10:1, and
 - (iii) lutein to lycopene of from about 0.1:1 to about 10:1.
4. The nutritional formula of Claim 1 wherein the combination of lutein, lycopene, and beta-carotene comprises from about 0.5 to about 8 ppm by weight of the total oil content of the nutritional formula.
5. The nutritional formula of Claim 1 wherein the combination of lutein, lycopene, and beta-carotene comprises from about 1 to about 3 ppm by weight of the total oil content of the nutritional formula.
6. The nutritional formula of Claim 1 wherein the formula comprises by weight of the total oil content of the formula from about 0.1 to about 5.16 ppm of lutein, from about 0.1 to about 9.8 ppm of lycopene, and from about 0.1 to about 5.9 ppm of beta-carotene.
7. The nutritional formula of Claim 1 wherein the formula comprises by weight of the total oil content of the formula from about 0.5 to about 2.5 ppm of lutein, from about 0.2 to about 5 ppm of lycopene, and from about 0.1 to about 4 ppm of beta-carotene.

8. The nutritional formula of Claim 1 wherein the polyunsaturated fatty acid represents from about 0.05% to about 20% by weight of total formula solids.
9. The nutritional formula of Claim 8 wherein the polyunsaturated fatty acid comprises one or more of decosahexaenoic acid, eicosapentaenoic acid, arachidonic acid, linoleic acid, linolenic acid, or combinations thereof.
10. The nutritional formula of Claim 8 wherein the polyunsaturated fatty acid comprises decosahexaenoic acid.
11. The nutritional formula of Claim 8 wherein the formula further comprises a combination of decosahexaenoic acid and arachidonic acid.
12. A powder infant formula comprising
- (A) carbohydrate,
 - (B) protein;
 - (C) lipid containing a polyunsaturated fatty acid; and
 - (D) from about 0.25 to about 10 ppm, the total oil content of the formula, of a combination of lutein, lycopene, and beta-carotene at the following weight ratios:
 - (i) lutein to beta-carotene of from about 0.0196:1 to about 59:1,
 - (ii) lycopene to beta-carotene of from about 0.00805:1 to about 114:1, and
 - (iii) lutein to lycopene of from about 0.0117:1 to about 108:1,
- wherein the formula is a powder nutritional formula.
13. The nutritional formula of Claim 12 wherein the formula comprises the following weight ratios:
- (i) lutein to beta-carotene of from about 0.1: 1 to about 10:1,
 - (ii) lycopene to beta-carotene of from about 0.1:1 to about 10:1, and
 - (iii) lutein to lycopene of from about 0.1:1 to about 10:1.
14. The nutritional formula of Claim 12 wherein the combination of lutein, lycopene, and beta-carotene comprises from about 0.5 to about 8 ppm by weight of the total oil content of the nutritional formula.
15. The nutritional formula of Claim 12 wherein the combination of lutein, lycopene, and beta-carotene comprises from about 1 to about 3 ppm by weight of the total oil content of the nutritional formula.

16. The nutritional formula of Claim 12 wherein the formula comprises by weight of the total oil content of the nutritional formula from about 0.1 to about 5.16 ppm of lutein, from about 0.1 to about 9.8 ppm of lycopene, and from about 0.1 to about 5.9 ppm of beta-carotene.

17. The nutritional formula of Claim 12 wherein the formula comprises by weight of the total oil content of the nutritional formula from about 0.5 to about 2.5 ppm of lutein, from about 0.2 to about 5 ppm of lycopene, and from about 0.1 to about 4 ppm of beta-carotene.

18. The nutritional formula of Claim 12 wherein the polyunsaturated fatty acid represents from about 0.05% to about 20% by weight of total formula solids.

19. The nutritional formula of Claim 18 wherein the polyunsaturated fatty acid comprises one or more of decosahexaenoic acid, eicosapentaenoic acid, arachidonic acid, linoleic acid, linolenic acid, or combinations thereof.

20. The nutritional formula of Claim 18 wherein the polyunsaturated fatty acid comprises decosahexaenoic acid.

21. The nutritional formula of Claim 18 wherein the formula further comprises a combination of decosahexaenoic acid and arachidonic acid.

22. An infant formula comprising

(A) carbohydrate,

(B) protein;

(B) lipid containing arachidonic acid and decosahexaenoic acid; and

(C) from about 0.25 to about 10 ppm of a combination of lutein, lycopene, and beta-carotene, by weight of the total oil content of the infant formula.

23. The infant formula of Claim 22 wherein the combination of lutein, lycopene, and beta-carotene represents from about 0.5 to about 8 ppm of the total oil content of the infant formula.

24. The infant formula of Claim 22 wherein the combination of lutein, lycopene, and beta-carotene represents from about 1 to about 3 ppm of the total oil content of the infant formula.

25. The infant formula of Claim 22 wherein the formula comprises, by weight of the total oil content of the infant formula, from about 0.1 to about 5.16 ppm of lutein, from about 0.1 to about 9.8 ppm of lycopene, and from about 0.1 to about 5.9 ppm of beta-carotene.
26. The infant formula of Claim 22 wherein the formula comprises, by weight of the total oil content of the infant formula, from about 0.5 to about 2.5 ppm of lutein, from about 0.2 to about 5 ppm of lycopene, and from about 0.1 to about 4 ppm of beta-carotene.
27. The infant formula of Claim 22 wherein the formula is in powder form.
28. The infant formula of Claim 22 wherein the formula is in liquid form.
29. The infant formula of Claim 21 wherein the polyunsaturated fatty acid represents from about 0.05% to about 15% by weight of total formula solids.
30. The infant formula of Claim 29 wherein the polyunsaturated fatty acid comprises one or more of decosahexaenoic acid, eicosapentaenoic acid, arachidonic acid, linoleic acid, linolenic acid, or combinations thereof.
31. The infant formula of Claim 29 wherein the polyunsaturated fatty acid comprises decosahexaenoic acid.
32. The infant formula of Claim 29 wherein the formula further comprises a combination of decosahexaenoic acid and arachidonic acid.
33. A method of providing nutrition to an infant, child, or adult, said method comprising administering to an infant, child, or adult the formula of Claim 1.
34. A method of providing nutrition to an infant, child, or adult, said method comprising reconstituting the formula of Claim 12 with water to form a ready-to-feed liquid, and then feeding the infant, child, or adult with the reconstituted formula.
35. A method of providing nutrition to an infant, said method comprising reconstituting the formula of Claim 27 with water to form a ready-to-feed liquid, and then feeding the infant with the reconstituted formula.
36. A method of providing nutrition to an infant, said method comprising administering to an infant the formula of Claim 22.